

Abstract

The present invention relates to a language-processing system, which includes at least one extractor as a device for the lexical assignment of the speech being processed and 5 at least one connector as a device for linking the lexically assigned speech to form a statement.

Language-recognizing systems are known, by way of example, from DE 100 51 794 A1, which remains, however, at the level of a simple tabular assignment, so that no 10 meaning-based processing is realized. The language-processing systems that are disclosed in DE 100 50 808 A1 and in DE 197 15 099 A1 advance a little further but are nevertheless limited to very narrow technical areas and for this reason can also operate without meaning recognition. In addition, in these cases, the speech, before its lexical assignment, is already subject to a filter, so that no free, conceptual 15 ascertainment of the verbal meaning takes place that is independent of the specific context. In particular, the systems do not operate on a conceptual level, but rather they assemble a reaction from a simple grammatical linking, or from a syntactic linking that has been previously input in a fixed manner, and from the search for individual, previously determined keywords.

20 According to the present invention, the extractor assigns concepts to the speech being processed (concepts are, for example, objects, events, characteristics (categories), in which the associated concepts, features, and/or more complex structures are assigned to a variable, so that as a result of these structures, such as concepts, features, and/or 25 more complex structures, the corresponding concept is filled with life and can be understood). In contrast to conventional, statistical methods for language processing, the system described here does not analyze the probability of occurrence of sequences of sounds (spoken language) or character strings (written language), but rather it extracts and processes the conceptual meaning of verbal messages. All core 30 procedures and knowledge bases of the system therefore operate independent of language. In order to process the input of a given national language, it is only

necessary to add the respective language-specific lexicon. The present invention makes possible the reconstruction of meaning even of verbal instructions that are syntactically/grammatically false.